Stantec Consulting Services Inc.



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MEMORANDUM

To: Amesbury Planning Board

Date: January 20, 2016

Cc:

Mr. Nipun Jain – City Planner

Re: Village at Bailey's Pond Site Plan

Mr. William Scott - Director of

Route 150 and Summit Avenue

Community & Economic Development

Amesbury, MA

From: Gerard J. Fortin, P.E.

Owner: City of Amesbury

Michael E. Leach

Applicant: Fafard Real Estate

Stantec Consulting Services Inc.

Project No. 1951-13172

Stantec Consulting Services Inc. has completed an initial design review of the above referenced project. The following information was provided:

- 1. Planning Board cover letter dated October 19, 2015 prepared by Jeffery Roelofs with attachments containing Amesbury Planning Board Application for Site Plan Review; Abutter List and tax cards; 2005 Bylaws; Project Overview and History.
- 2. Exhibits binder with 17 exhibits identified as: Completed Building Permit Application (with appendices); Letter of Authorization from Mayor; Aerial Locus Figure and Overall Site Plan; Zoning Overview; Project Narrative – prepared by Fafard's consultant, Oak Consulting Group ("OCG"; Procedural History – prepared by OCG; Documents from Planning Board Site Plan Approval Process; Planning Board's 2013 Site Plan Decision; Amended Complaint filed in Land Court (without Ex. A); Table Summarizing Fafard's Objections to 2013 Site Plan Decision; Land Court's Notice of Docket Entry dated December 29, 2014; MassDOT Access Permit issued August 14, 2014 (Permit # 4-2014-0184); Lowe's Home Centers, Inc. v. Town of Auburn Planning Bd. (Land Ct., 2010); M.G.L. c. 40A, § 6 (annotated); Excerpts from June 2004 Amesbury Master Plan; Certificate of Town Clerk – Approval of Definitive Subdivision Plan, issued April 26, 2006; Purchase and Sale Agreement between Fafard and Amesbury and subsequently recorded Sports Park Restriction.
- 3. Project site plan set consistent of 15 sheets labeled as T-100, C-101, C-102, C-201, C-202, C301, C-302, C-401, C-402, C-501, C-502, C-601to C604 dated 10/1/15, prepared by Oak Consulting Group.
- Conceptual architectural elevations and floor plans, undated. 4.
- 5. Stormwater Management Study for Village at Bailey's Pond, dated October 2015, prepared by Oak Consulting Group.

The project is located on Route 150 and Summit Avenue and has a small amount of frontage on Beacon Avenue. The project site has frontage along a portion of Bailey's Pond. The application information indicates that this is a modification of a prior approval. The modification in this submittal appears to be significant. Under this application, the proposed project is a 100 unit multi-family development located on vacant land. In general, the project proposed to construction roadways, sidewalks, and install public water and sewer utilities to serve the residential units. A trail is proposed adjacent to Bailey's Pond. The applicant information references a previous traffic report submitted



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 2 of 14

under the previous approval is relevant to this application. Stantec has reviewed the submission relative to Section XI.C Site Plan Review of the Amesbury Zoning Bylaws and offer the following comments:

Section XI.C.5 Material For Review:

- a. <u>Parcel information:</u> Existing conditions plans are provided that indicate most of the site boundary, but the northerly most portion of the site is missing from sheet C-102 and recommend the information be provided. We note the following and recommend the plans be revised accordingly by the Applicant:
 - i. Plans lack the appropriate certification by registered land surveyor attesting to the boundary information and easements shown;
 - ii. Location and owner names of all adjacent properties is missing;
 - iii. Location of the two subject parcels and total area of each.
 - iv. The Applicant should review and confirm with the DEP and Conservation Commission that the southeasterly limits of the 200 foot river front area is a straight line as shown and update if necessary.
- b. <u>Topographic and existing land features:</u> The existing condition plans indicate most of the topographic contours, except for the missing northerly portion noted above that should be included. We note the following and recommend the Applicant revise the plans accordingly:
 - i. The location of all existing trees over 8" in caliper is unclear since the legend does not include all the symbols presented on the plan. Recommend the size and type of each existing tree over 8" be labeled. In addition, we recommend the legend be updated to be complete;
 - The location of the existing drain piping related to the catch basins and the separate
 18" pipe at Summit Avenue are missing;
 - iii. The general location of the tree line is missing;
- c. <u>Buildings</u>: Conceptual plans are provided that are not part of the project plan set. The building conceptual information does not include dimensions of the overall buildings, total gross floor area, floor finished elevations, building heights or prepared to the proper scale and endorsed by a registered architect in accordance with the bylaws. The Applicant should revise the project plan set accordingly.
- d. <u>Parking and driveways:</u> Driveways are indicated on plans provided. Parking is not addressed on the plans. See XI.C.8.b below for additional comments.
- e. <u>Sidewalks, bike paths and recreational trails:</u> Indicated on plans provided. See XI.C.8 n and p below for additional comments.
- f. <u>Utilities:</u> Indicated on plans provided. See XI.C.8 m below for additional comments.
- g. <u>Grading and Stormwater Drainage:</u> Indicated on plans provided. See XI.C.8 e and p below for additional comments.
- h. Landscaping: Indicated on plans provided. See XI.C.8 c below for additional comments.



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 3 of 14

- i. <u>Lighting:</u> Some information provided. See XI.C.8 i below for additional comments.
- j. <u>Signs:</u> None shown. The Applicant should indicate any proposed signs and provide appropriate information or notes on the site plan that none are proposed.
- k. Open Space: Not labeled on plan. See XI.C.6.f below for additional comments.
- <u>Traffic Generation:</u> Information from 2010 provided. See XI.C.6.d and 8.a below for additional comments.
- m. <u>Building Facades and Floor Plans:</u> Conceptual plans provided separately. See XI.C.6.e and 8.d below for additional comments.

Section XI.C.6 Additional Review Material:

- a. <u>Surface and water pollution:</u> Stormwater runoff information provided. No report on the impacts to subsurface groundwater or water tables was provided. The Applicant should provide additional information relative to these items acceptable to the Planning Board.
- b. <u>Soils:</u> Test pit information conducted in 2004 was included in the submission. Stanted recommends that appropriate testing be conducting in the proposed infiltration areas under this design.
 Separately, the project proposes significant alteration of the site with cutting and filling to achieve the proposed elevations, but the amount of soil to be excavated or filled does not appear to be included in the application information relative to Sections XI.A & XI.B of the bylaws. A special permit appears necessary. The Applicant should provide additional
- c. <u>General environmental impact:</u> No Information provided. The site proposes to create more than 6 acres of impervious area and a MEPA review appears necessary for this current design. We recommend the Applicant provide a report to address the project impacts acceptable to the Board. In addition, the Applicant should submit for a MEPA review for this current project design.

information relative to these items acceptable to the Planning Board.

- d. <u>Traffic impacts:</u> The report submitted is based upon information obtained in 2010, for a previous project, but not include any recent developments. We note that the reports' project description is inconsistent with the design submitted with this application; but that the previous report was for 136 residential units versus the current proposal with 100 units and thus the impacts noted in the report would less than noted in the report. The driveway on Summit Avenue is relocated under this latest submission, but this is not reflected in 2010 report. The sight distance for the Summit Avenue driveway is now different that described in the 2010 report. In general, the issues identified in the previous traffic reviews have been addressed. We recommend that the Applicant discuss if additional traffic information is necessary with the Board.
- e. <u>Architectural Drawings:</u> Some Information provided. The architectural drawings for the project do not appear to be prepared by a registered architect in accordance with the bylaws.



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 4 of 14

- f. Legal Documents: Some Information provided relative to the previous project. Draft versions for the legal documents (covenants, or agreements) associated with the public access, open spaces and trail system should be provided by the Applicant to the City. We recommend the Applicant clarify the open space for the project. In addition, we note the proposed drainage design indicates the existing drainage flowing from Route 150 and Summit Avenue would be relocated and create a new discharge within in the 200 foot river front area. It is unknown if Mass DOT has agreed to this change to their drainage system, if access is needed to the new pipe and outlet location for maintenance, or if this new outlet location and discharged within the 200 foot riverfront area is acceptable to the Conservation Commission. Additional legal documents may be necessary associated with the submitted design. The Applicant should discuss the necessary legal documents for the project with the Board.
- g. Additional Information: Copies of the previous Mass DOT, MEPA submittal and Planning Board approval information was provided. The revised project appears to require several permits including an order of conditions for the wetland and buffer impacts, revised Mass DOT for the wider driveway and the drainage relocation related to the existing drainage pipes, and MEPA certification for the current design. It is unclear if the previous project had address the MEPA comments. The Applicant should provide a listing of all state and federal permits, licenses and approval necessary for this project and provide the estimated schedule for application and approvals in accordance with the bylaws. We recommend the necessary project permits be listed on the cover sheet.

Section XI.C.8 Development and Performance Standards:

- a. Access and traffic impacts: We note the following relative to the submitted design:
 - The project proposes three curb cuts with one from each abutting roadways; Route 150, Summit Avenue and Beacon Street. The access drive from Beacon Street is designated as an emergency access and is to be gated. The design configuration for this portion of the site containing 76 housing units would have one public access route from Route 150. The Board will need to consider if the design as proposed is acceptable.
 - 2. The proposed entrance from Route 150 includes an island that separates the traffic entering and exiting the site. The width of the entire curb cut including the island, travel lanes is approximately 30 feet and exceeds the 24 feet maximum at the ROW with Route 150 per XI.C.8.a.3 of the Bylaws. We note that each lane in and out is dimensioned as 12 feet on the site plan sheet C-201. The design as shown would require a revision the current Mass DOT permit with the increased width indicated. The raised island may require changes to be acceptable to Mass DOT. The Applicant is requesting a waiver to width requirement at this this driveway. The Board should review the design and consider the waiver request.
 - Separately, the proposed emergency access drive from Beacon Street and the proposed driveway on Summit Avenue does not exceed 24 feet.
 - 3. The roadway sight distance plans were not included in the project plan submission. We are concerned that the proposed roadway intersection on Summit Avenue may require more improvements that indicated on the submitted design to achieve proper sight distance. We recommend the Applicant provide an intersection sight distance plan with certification from a licensed professional engineer that proper and safe all



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 5 of 14

season sight distance is achieved upon completion of the site improvements for both roadways. The plans should specify all work needed to achieve the sight distance for proper construction.

- 4. The proposed roadway design does provide curbing for the entire site in accordance with the Section 7.09.G of the Amesbury Subdivision Regulations. In addition, the site design proposed to decrease the separation between the proposed sidewalks and roadway from 6 feet to 3 feet that is contrary to the intent of Section 7.09.H the Amesbury Subdivision Regulations and Section XI.C.8.a.5 of the bylaws. In addition, the design indicates a shoulder for pedestrians is to be constructed along a portion of the entrance driveway with no separation or curbing from vehicles. Curbing and appropriate separation from vehicular traffic are generally key components to promoting a safer circulation of pedestrians as recommended in section XI.C.7.a.2 of the bylaws. We recommend the design be revised to provide curbing along all portions of the roadway and the minimum separation for sidewalks consistent with the Subdivision Regulations and Bylaws or as acceptable to the Board. The Applicant is requesting a waiver to reduce the sidewalk separation to 3 feet and to eliminate most of the curbing along the roadways.
- 5. The proposed design indicates a sidewalk will be constructed along Summit Avenue from the northerly development area ending at to Route 150. In addition, a sidewalk is proposed along the main site driveway of the easterly development area ending at Route 150. Both of these two sidewalks end at Route 150 and are not connected along Route 150 to provide complete circulation between the two development areas. We recommend a sidewalk along Route 150 be provided to connect the two development areas consistent with the intent of Section XI.C.8.a.7 of the Bylaws. In addition, we recommend a sidewalk along the entrance drive to the mailboxes and potential school bus stop at Route 150 be provided. Also, we recommend that cross walk be provided at the Route 150 driveway. We recommend the Applicant discuss the proposed project sidewalks with the Board and revise the plans acceptable to the Board.
- 6. The proposed roadway design for the easterly portion of the site, shown on sheet C-201, does not provide a cul-de-sac prior to emergency access drive that is necessary to provide a safe turn around and means to accommodate the anticipated delivery vehicles such as propane, oil, Fed Ex, UPS, etc. in accordance with Section IX.C.8.a.11 of the bylaws and Section 7.09.D.4 of the Subdivision Regulations. We recommend the Applicant revise the roadway design accordingly.
- 7. The proposed project roadway design included two separate cul-de-sacs with interior pavement radii of 16 feet, a pavement width of 24 feet in the cul-de-sac and outside pavement radius of 40 feet that do not comply with Section 7.09.D.4 of the Subdivision Regulations. The design would not accommodated a SU 30 vehicle (with a turning radius of 42 feet) such as propane, oil, Fed Ex, UPS, etc. in accordance with Section IX.C.8.a.11 of the bylaws. In addition, the design may not be adequate for Emergency and Fire vehicles. We recommend the Applicant revise the roadway cul-de-sac design consistent with the Subdivision Regulations. The Applicant is requesting a waiver to the cul-de-sac requirements.
- b. Parking: We recommend the Applicant clarify the following:
 - The proposed residential use requires 1.5 spaces per dwelling unit in accordance with Section VIII of the Bylaws. However, the application information implies 3 to 4 spaces



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 6 of 14

are provided for each unit that includes garage and outside spaces. We note that the plans do not include any information relative to the minimum parking requirements or address the actual number of spaces intended for each unit as would be anticipated and requested by the Board. The Applicant should revise the site plan notes accordingly to clarify compliance with the bylaws.

- 2. Please note that several units, such as 32, 33, 44, 52, 77, 98 and 99 do not appear to have a minimum 18 feet from the sidewalk or roadway pavement to the unit to be considered as outside parking space within the driveway area shown. We note that the design does not have spaces that could be utilized or designated for visitors as typically recommend by the City. The Applicant should indicate and label all outside parking spaces on the layout plans for clarity and to confirm the parking area is adequately sized.
- 3. The location of parking spaces in the driveways appears to impact visibility of cars to access (back into) the roadway that is not allowed buy section VIII.G.12 of the Bylaws. The proposed driveways shown are stacked together at the buildings and it appears that visibility would be obstructed with cars in each of the driveways. The short driveways do not provide a means to turn around when exiting the garage and face roadway traffic. We recommend the Board review and consider if parking spaces in the driveways should be allowed under this design. We recommend the Applicant discuss the proposed site parking with the Board and revise the design as necessary acceptable to the Board.
- c. Landscaping: We recommend the Applicant address the following:
 - The landscape plans submitted are not prepared by a registered landscape architect as required by Section XI.C.5h of the bylaws. The Applicant should revise the plans accordingly.
 - 2. The roadway design does not appear to provide the minimum tree planting in accordance with section 7.09.1 of the subdivision regulations. The Applicant should revise the plans accordingly.
 - The project plans do not include details indicating the appropriate methods to install/construct the landscaping as described in the subdivision regulations. The Applicant should revise the plan set accordingly.
 - 4. The utility plans indicate several transformers are to be placed on the site but landscaping in accordance with section XI.C.8.c.5 does not appear to be provided. The Applicant should review and revise the design accordingly.
 - 5. The site design includes several retaining walls with several 6 foot tiered wall locations. The design indicates a 4 foot chain link fence is proposed along the upper most walls and provision to limit access to the other walls in the series is indicated on sheet C-202, but is missing from sheet C-201. The design on sheet C-201 indicates only one fence would be placed along the proposed tiered retaining walls. The Applicant should review with the Building Department and confirm if additional fencing along the ends should be provided to minimize access to the other walls. In addition, it appears a fence is needed along the retaining wall connected to unit 4 and at the wall between units 8 and 9. We recommend the design be revised to include additional provisions to limit access to the walls acceptable to the Board and Building Department. In addition, we recommend that the Applicant note the top and toe elevations of each wall on the grading plan for clarity and proper construction.



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 7 of 14

- 6. The project details include a small block wall and a separate chain link fence detail, but a detail to clarify the appropriate location of the fence along the wall with dimensions is not provided for proper construction. We note the several of the six foot high walls are tiered and understand that the Building Department requires retaining walls over four feet be designed by a professional engineer. Please update the plan set accordingly.
- 7. The roadway design shown on sheet C-201 includes placement of the guardrail along the top of one the 6 foot tiered retaining walls. We recommend the Applicant provide a detail to indicate the location of the guardrail adjacent to the tiered retaining wall and calculations supporting that the wall is adequately designed to address the adjacent guardrail and potential impacts along this curved section of the roadway.
- 8. The site design intent shown on sheet C-201 is to have pedestrians along a portion of the roadway pavement north of unit 4 and along a portion of the site with several 6 foot tiered retaining walls. The design notes only a guardrail is to be provided, but a standard guardrail does not provide the appropriate protection from the 6 foot wall drop off. The Applicant should review and revise the design to provide an appropriate design for pedestrians acceptable the Board.
- 9. The landscaping plans do not address maintenance in accordance with Section XI.C.8.c.6 of the bylaws. The Applicant should update the plans accordingly.
- d. Site Plan and Architectural Design: We recommend the Applicant address the following;
 - 1. The submitted application information included the building plans and renderings, but the plans are not included in the project plan set, are not endorsed by a registered architect, are at the appropriate scale or include all information noted in the bylaws. The Applicant should revise the plan set accordingly to include the building plans in accordance with the bylaws and acceptable to the Board.
 - 2. We note that several units, such as 32, 33, 44, 52, 77, 98 and 99 do not appear to be 20 feet from the sidewalk or roadway pavement and could be considered within the front setback. We note that serval other units such as 16, 17 and 50 could have potential additions (dashed lines) that would place the builds closer to the roadway. No further review was conducted as related to the site plan building layout. We recommend the Applicant discuss the proposed project design building layout with the Board. The Applicant should revise acceptable to the Board.
 - 3. We note that most of the building separations on the plans are less than 30 feet and recommend the Applicant confirm that appropriate building separation is provided with the Fire Department.
- e. Stormwater runoff: We recommend the Applicant clarify the following:
 - 1. The stormwater design proposes to connect to Mass DOT 's existing 18" drain pipe outlet within the Route 150 right of way and redirect the runoff into a piping system onsite adjacent to Summit Avenue and discharge at the limits of and within the 200 riverfront area associated with a tributary stream to Bailey's Pond. The design indicates that another 18" pipe along the route under Summit Avenue would also be connected to the proposed system. The stormwater management report identifies four outlets drain onto the site and notes that "High volumes through these culverts have caused some significant erosion at these outfalls". However, the analysis does not address these culvert flows onto the site or if the proposed system is adequately designed. The Applicant should revise the design and report to address the following:



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 8 of 14

- a. Provide documentation that Mass DOT has agreed to the proposed relocation of the drain system within Route 150. This should include the location/alignment of the proposed piping system (under retaining walls?) and any associated access and/or maintenance easements requested/required for the pipe and outlet.
- b. Provide documentation that Mass DOT/Department of Public Works has agreed to the proposed connection to and relocation of the proposed drain system as related to the 18" pipe under Summit Avenue. This should include the location/alignment of the proposed piping system (under retaining walls?) and any associated access and/or maintenance easements requested/required for the pipe and outlet.
- c. Provide analysis indicating the current flows from these culverts to the site and impacts/flows to Bailey Pond.
- d. Provide analysis that the proposed system is adequately sized to the handle the 100 year storm event. The calculations should be included for each storm event in the report.
- e. Provide outlet protection calculations for sizing the stone apron at the proposed outlet.
- f. Address proposed downstream flow impacts directed to the proposed sewer pump station acceptable to the Department of Public Works.
- g. Address proposed impacts to Bailey's Pond and abutters.
- 2. The submitted analysis is based upon rainfall data that is does not represent the known regional rainfall increases documented for the 2, 10 25 and 100 years storms based upon the NOAA Atlas 14 precipitation data. The Applicant should update the analysis accordingly.
- 3. The stormwater report and site design indicate 10 infiltration basins/areas are to be created for the project of various sizes and with various outlet devices. We recommend a typical cross section detail of the various basins and various outlet devices be provided in the plan set for proper construction.
- 4. The pond analysis at pond 2-2 does not address the catch basin outlet device with a rim of 39.0 and pipe outlet. The Applicant should revise the analysis according.
- 5. Ponds 1-7 and 1-8 note rectangular outlet devices that are not indicated on the grading plans. The Applicant should indicate the devices on the grading plan for proper construction.
- 6. The analysis for ponds 2-1, 1-5, 1-2 and 1-5 do not address the catch basin outlet device or the pipe. The Applicant should revise the analysis according.
- 7. The 25-year post development analysis indicate at Ponds DMH P2-3, DMH P1-1, DMH P1-6, barrel controls the discharge indicating the pipe size is not adequate for the 25-year design storm. The Applicant should revise the analysis according to provide proper pipe sizing for the 25-year storm.
- 8. The report does not include any calculations for the stone apron sizing in the plan set. The Applicant should revise the report to include the analysis according.
- 9. The site design indicates a compact design with sidewalks, numerous driveways and proposed multifamily dwellings in close proximity to the proposed roadways that concentrates the runoff to the roadways that are most not curbed. We believe that this "country drainage" design noted by the Applicant is not appropriate for the site design presented. We are concerned that the roadway edges and the narrow separations from sidewalks (three feet) would undermine the roadways without curbing. We recommend that the roadways be curbed entirely in accordance with



January 20, 2016
Village at Bailey's Pond Site Plan Application
Route 150 and Summit Avenue – Amesbury, MA
Applicant: Fafard Real Estate and Development
Page 9 of 14

the Subdivision Rules and Regulations. The curbing also provides a separation measure between vehicular traffic and pedestrians utilizing the sidewalks. We recommend the Applicant revise the analysis according.

- 10. A cursory review of the drainage system information indicates several catch basins such as P1-10, P1-11, P1-15, P1-16, P1-18, etc., do not provide the minimum 3 feet of cover over the drain pipe as required per section 8.04.A.1 of the Subdivision Rules and Regulations. In addition, several drain manholes do not provide the minimum pipe cover in accordance with the regulations. The Applicant should carefully review the entire drainage system design and revise as necessary to provide the minimum cover require by the regulations and acceptable to the Department of Public Works.
- 11. The proposed drainage system is noted to be HDPE that does not comply with section 8.04.A.1 of the Subdivision Rules and Regulations requiring concrete pipe. The Applicant should revise the design accordingly.
- 12. The site grading plan does not include the finish floor elevations to adequately review the proposed grading design as related to the proposed buildings. The Applicant should revise the design accordingly.
- 13. The proposed grading design along the roadway adjacent to units 1-4 appears to indicate some of the roadway drainage could be directed to the buildings, which is not recommended. This also appears to occur near units 52-54, and 82-84. It is also unclear what the grading intent is in the vicinity of units 100-93 and 80-77. The Applicant should provide additional spot elevation for clarity and proper construction.
- 14. The location of FES P1-7 at elevation 45.9 would appear to be above the existing ground elevation of 44 on sheet C-302. On addition, DMH P1-11 with a rim of 52.0 is 4 feet above elevation 48.0 and the 18" pipe into the DMH at elevation 46.2 appears to have less than a foot of cover with a portion of the proposed pipe south of the DMH placed at elevation 46 indicating that no cover is provided for the pipe. Please carefully review the proposed drain system layout to ensure the proposed design is appropriate and in compliance with the regulations.
- 15. The Applicant should review and update the drain manhole labels on the drainage plan to DMH vs DHM for clarity and consistency with the stormwater report.
- 16. The grading plan does not include any design information such as spot elevations for the proposed sidewalk construction along Summit Avenue. The design appears to impact existing catch basins, require relocation of guardrail and possibly some shoulder widening. We note portions of the existing grading appear to be at 2H:1V and may require a pedestrian rail. The Applicant should coordinate the proposed sidewalk design with the Department of Public Works and include appropriate details in the plan set such as a typical section of the sidewalk with the guardrail location and slope grading for proper construction.
- 17. A detail for a double grate catch basin should be included in the plan set by the Applicant.
- f. <u>Erosion Control:</u> We recommend the Applicant clarify the following:
 - Erosion control configuration for the site shown on sheets C-301 and C-302, but appears incomplete. For example, construction entrances and the erosion control matting areas indicated in the details on sheet C-601 are missing along with staging and stock pile areas typically associated with construction. With the two different areas, it would likely be constructed in phases, but phasing is not noted for the project. We note the seed planting on sheet C-601 is not consistent with the notes on the



January 20, 2016
Village at Bailey's Pond Site Plan Application
Route 150 and Summit Avenue – Amesbury, MA
Applicant: Fafard Real Estate and Development
Page 10 of 14

landscape plan, which should be consistent. We recommend that separate plans related to erosion control be prepared that include, construction entrances, erosion control matting, staging and stock pile areas, phasing, temporary facilities such as construction trailer, portable toilets, dumpster, etc. the seeding notes of the landscape plan and erosion control should be updated accordingly to be consistent.

- We note construction is proposed along Summit Avenue but the plans do not include any erosion control measures. We recommend the Applicant carefully review the project design and provide/include all appropriate measures necessary for the project.
- 3. The proposed design includes construction of a trail along Bailey's Pond. We note that the trail is to be constructed from the emergency access drive and is located along a steep portion of the site with nearly a 30 foot grade change in 150 feet. What measures will be implemented to prevent trail erosion in this area? Please clarify and note accordingly on the plans.
- 4. The grading shown on sheet C-301 indicates a 130 foot long slope a 3H:1V with an elevation from 86 to 42 without any grade breaks and benches or erosion control fabrics to minimize erosion potential and concentrated flows. This slope has potential for erosion with sandy soil conditions noted in the submitted information. We recommend that the Applicant updated the slope design be revised to provide grade breaks and benching or provide an appropriate erosion control matting design to minimize the erosion potential or this area.
- g. Water Quality: We recommend the Applicant clarify the following:
 - The project design proposes to utilize drywells as one of the measures to provide groundwater recharge as indicated by the detail provided on sheet C-604. However, it is unclear where these are to be used. Please properly label on the drainage plan for proper construction.
 - 2. We note the design includes infiltration within the detention basin areas and proposes 4 foot deep sump catch basins. The catch basin detail appears to imply that an outlet hood is to be used but the information is unclear. We recommend the catch basin detail be updated for clarify and design intent including information on the hood for proper construction. The measures noted above are consistent with the water quality performance standards outlined in the bylaws.
- h. <u>Hazardous Materials and Explosive Materials:</u> The submitted information does not include or address this performance standard and it is unknown if it is applicable. Will oil or propane systems be used for the units? We recommend the Applicant provide a note on the site plan or supporting documentation for the project file that demonstrates compliance of this standard acceptable to the Fire Department and Planning Board.
- i. <u>Lighting:</u> We recommend the Applicant clarify the following:
 - 1. Light poles are indicated on the utility and landscape plans, but the utility line to serve each pole is missing. Please update the utility plan accordingly.
 - 2. The light pole detail indicates the proposed pole height is 22 feet and exceeds the 16 foot maximum per XI.C.i.2 of the bylaws. Please revise the detail accordingly.
 - 3. A photometric plan was not provided per XI.C.i.6 of the bylaws. We recommend the Applicant provide a photometric plan indicating the proposed lighting levels. The plan should to indicate compliance with XI.C.8.i of the Bylaws is achieved.



January 20, 2016
Village at Bailey's Pond Site Plan Application
Route 150 and Summit Avenue – Amesbury, MA
Applicant: Fafard Real Estate and Development
Page 11 of 14

- j. <u>Environmental Performance Standards:</u> The application submittal did not include a general environmental impact report per Section XI.C. 6.c of Bylaws or information relative to meeting the performance standard of Section XI.C.8.j. We recommend the Applicant prepare and provide the required information and include an explanation how the project has met the development and performance standards of the Bylaws for review and consideration of the Planning Board and for the project file.
- k. <u>Noise:</u> The submission noted that the "no commercial or industrial activities are proposed". We recommend the Applicant provide a note on the layout plan indicating the project will comply with Section XI.C.8.k of the Bylaws or other notes acceptable to Board.
- I. Wetlands: The project site is located along Bailey's Pond with an on-site stream that discharges into Bailey's Pond entering the site from a culvert under Summit Avenue. In addition, an isolated on-site wetland area is indicated on the plans. The project design includes impacts to the 100 foot buffer to Bailey's Pond, impacts to the 200 riverfront buffer of the existing stream, impacts adjacent to the isolated wetland and impacts to the stream and adjacent wetlands for construction of utilities under the stream to serve the site. An order of conditions for the proposed wetland and buffer impacts is needed for the project as proposed. We recommend the Applicant obtain an order of conditions for the project and incorporate the necessary measures of the order of conditions in the plan set to address this performance standard.
- m. <u>Utilities:</u> We recommend the Applicant clarify the following:
 - 1. The project design indicated the site would be served by public sewer. The layout includes a sewer pump station, but sewer pump discharges directly to an existing sewer manhole on Beacon Street that is not recommended. We recommend that the design be revised to provide a new sewer manhole for receipt of the site sewer pump discharge that would flow by gravity into the existing manhole at this location. We recommend the Applicant discuss the proposed sewer pump design with the Department of Public Works and update the design as necessary acceptable to the Department.
 - 2. A cursory review of the sewer design was conducted and we note that the sewer design inverts indicates the proposed sewer pipe at SMH P1-1 and SMH P1-2 will have less than 4 feet of cover. In addition, the sewer inverts at SMH P1-3 indicate the sewer pipe will have less than 5 feet of cover and do not provide the minimum 5 feet of cover under pavement as required by sections 7.07 and 8.09.4 of the Subdivision Regulations. Separately, a review of the inverts and design slopes of the proposed drain pipe from CB P-17 to DMH-P1-7 would appear to conflict with the proposed sewer line. In addition the inverts and design slopes of the proposed drain pipe from CB P-15 to DMH-P1-7 would appear to conflict with another proposed sewer line. As such, no further review of the sewer design was conducted. We recommend the Applicant carefully review the proposed sewer and drainage design and revise as necessary acceptable to the Department of Public Works. We recommend that a plan and profile of the proposed sewer system indicating all crossings be included within the project plan set.
 - 3. The design indicates the site will be served by public water with connections at Route 150, Beacon Street and Summit Avenue. The Applicant should verify the proposed



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 12 of 14

connection locations are acceptable to the Department of Public Works and that adequate pressure and capacity is available. The Applicant should indicate the pavement sawcut limits associated with the connections for proper construction. The Applicant should obtain any permits for the proposed water service from the Department of Public Works. In addition, the Applicant should obtain a permit/permission for the proposed work in Route 150 from Mass DOT.

- 4. The plans indicate underground electric and communication utility connections to serve the site will be from Beacon Street for the easterly development area and from Summit Avenue for the northerly development area. We recommend the Applicant obtain and provide letters from each utility provider indicating the proposed service location is acceptable and service is available for the Planning Board's file.
- 5. The plans do not address how the project will handle refuse/trash as noted in XI.C.5.f. of the bylaws. The Applicant should clarify and note accordingly on the site plan.
- 6. The size and types of the existing water lines should be noted on the existing conditions and utility plans. In addition, the size and type of drain pipes along Summit Avenue should be indicated on the existing conditions plan. The Applicant should update the plans accordingly.
- 7. We recommend the Applicant update the plans and application information as necessary to obtain the sewer and water utility connections acceptable to the Department of Public Works.
- n. Roadways and Sidewalks: We recommend the Applicant clarify the following:
 - The proposed paved sidewalk indicated by the detail on sheet C-602 does not comply with section 8.05 the Amesbury Subdivision Regulations requiring a concrete sidewalk. The Applicant should revise the detail in compliance with the regulations and note the sidewalks are concrete on the site plan.
 - 2. The site design indicates a mailbox area to serve the easterly site will be placed on Route 150, but no improvements are indicated in this area. It seems appropriate that the boxes should be placed along the entrance drive with a pull off. Please verify and confirm that the mailbox location shown meets approval of Mass DOT and post master. In addition the Applicant should verify the proposed mailbox location to serve the northerly development is appropriate and acceptable to the DPW and postmaster.
 - 3. The design indicates a sidewalk is to be constructed along Summit Avenue. We recommend the sidewalk be designed with curbing to separate pedestrians from vehicular traffic acceptable to the Department of Public Works. The Applicant should update the plan set to include appropriate design and details for proper construction in this area acceptable to Department of Public Works.
 - 4. The site design does not provide sidewalks on both sides of the roadway per section 7.09.H of the Amesbury Subdivision Regulations. We recommend that a sidewalk versus a pedestrian shoulder be provided along the main site drive of the easterly development area and that the sidewalk continue to Route 150 and to the potential school bus stop area. In addition, we recommend that appropriate cross walks with accessible ramps be provided along Route 150 and at the roadway intersection opposite unit #74. The Applicant notes a waiver is requested to provide a sidewalk along one side of the proposed drives (private roadways) in some locations. We recommend that the Applicant discuss the proposed waiver request and sidewalk



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 13 of 14

- locations with the Board. The Applicant should revise the design acceptable to the Board or in compliance with the regulations.
- 5. The Applicant submission notes that a waiver for 200 foot centerline radius of the roadway design is requested. However, the plans do not include any roadway design or geometry information. It appears that this waiver may apply to more than one location, but it is unknown. We recommend that the Applicant revise the plan set to provide the roadway horizontal and vertical design for review and comparison relative to the roadway design standards of the City of Amesbury and AASHTO. The information should include stationing for the roadways. No further review of the roadways or sidewalks was performed at this time.
- o. <u>Marina or Docking Facilities:</u> The project design does not indicate any proposed marina or docking facilities and this performance standard does not appear to apply to this application.
- p. <u>Specific Design and Construction Standards:</u> We recommend the Applicant clarify the following:
 - Please provide roadway names and unit address acceptable to the Board and Fire Department.
 - 2. Please note the roadways (on site drives) are to be private. The Applicant should provide notes on the plans acceptable to the City.
 - 3. Recommend the access trail be updated to provide a connection to the sidewalk along the northerly development area. This could be located in the utility construction area south of unit 77.
 - 4. The project proposed a trail adjacent to Bailey's Pond, but details for the trail construction are missing from the plans set including any associated grading. Should other amenities along the trail be provided such as benches or informational signs? An easement for use by the public appears necessary. The Applicant should discuss the trail design and public access with the Board and should update the plans and application information acceptable to the Board.

Other information for Planning Board Consideration:

- 1. The City tax maps indicate there are three separate lots in this area with only lot 50 map 88 and lot 1 map 98 labeled. It appears there is another unlabeled lot between these two labeled lots as displayed on tax map 87. The development for the easterly area would appear to be upon both the unlabeled lot and lot 1. We recommend that Applicant clarify if there is an additional lot and if a lot consolidation plan that combines the existing lots into one lot that allows the proposed development is needed to meet the setback requirements of the Bylaws.
- 2. A special permit may be required under section XI.A and/or IX.B of bylaws. The Applicant should review the project soil volumes and the requirements under section XI.A and/or IX.B of bylaws and submit an application for a special permit if applicable. We recommend that the Applicant provide information on the proposed soil volumes for the Planning Board's project file.
- It is our understanding that the Applicant had requested an immediate review and meeting relative to this major modification design and we understand the Applicant has requested a meeting for January 21, 2016. At the City's request, Stantec has conducted an expedited



January 20, 2016 Village at Bailey's Pond Site Plan Application Route 150 and Summit Avenue – Amesbury, MA Applicant: Fafard Real Estate and Development Page 14 of 14

review of the major elements of the submitted project design needed to meet the Applicant's request for review comments and meeting. Clarification and/or information may arise from this meeting that may need further comments.

4. We understand that the Applicant has recently submitted additional information to the City related to the project that was not included with this review and further comments on the additional plans and information may arise.

Summary:

We recommend the Applicant arrange a meeting with Stantec and the Community & Economic Development Department before addressing the issues noted above. After the meeting, we recommend the Applicant address the comments and issues noted above and resubmit revised drawings and supporting information. We recommend the Applicant provide a summary response letter with the revised drawings and supporting information addressing each comment noted above.

GJF/ml